The Influence of Structural Features and Surface Proper- 20-119-5-33/59
ties on the Froth Flotation Extraction of Poorly Floatable Lead Minerals

and composition strongly differentiates from the easily floatable minerals. Therefore the authors tried to explain the unsatisfactory results in the floatation of the above mentioned minerals by the investigation of their crystallo-chemical characteristic features and of their surface properties with regard to water and various flotation reagents. Based on the results of these investigations also the most effective methods for the floatation of the mentioned minerals are to be found. The authors first of all calculated the energies of the crystal lattices of the lead minerals to be investigated by means of the method by Foreman. According to the results given in a table the energies of the crystal lattices of cerussitem anglesite and wulfenite (group I) differ only little from each other. The second group of minerals (mimetisite, pyromorphite and vanadinite) have great values of lattice energies. The greatest energies of the crystal lattice have beudantite, mimesite, plumbo-bojarosite and pyromorphite. Already the given data make possible an orientation in the estimation of the flotation properties with regard to their capability for interaction of all mentioned minerals with the reagents. The inve-

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The Influence of Structural Features and Surface Properties on the Froth Flotation Extraction of Poorly Floatable Lead Minerals 20-119-5-33/59

stigation carried out showed the coincidence of the flotation properties with the capability for interaction of the mentioned minerals with the calculated values of energy of the crystal lattice. Thus, for instance, the effectiveness of the action of sodium sulfide on oxide lead minerals decreases in the transition from the minerals of group I to the minerals of groups II and III. Various details concerning the flotation of poorly floatable minerals are given. Phosphotene, petroleum, lubricating oil for automobiles, and polugudron together with xanthogenates served as new effective flotation reagents. Finally the author thanks N.V. Belov, Member, Academy of Sciences, and G. B. Bokiy for valuable advice. There are 1 table and 2 references, 0 of which are Soviet.

SUBMITTED: December 18, 1957

Card 3/3

SOV/180-59-3-3/43

AUTHORS: Glembotskiy, V.A., Kolchemanova, A.Ye. and Fikkat-ordynskaya, A.P. (Moscow)

TITLE: Looking for New Methods of Separating Collective Flotation Concentrates

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 3, pp 13-19 (USSR)

ABSTRACT: This article is a report approved by a session of the Uchenyy Sovet (Scientific Council) of the Institut Gornogo dela (Mining Institute) AN SSSR (AS USSR) in December 1956. The authors mention the promising proposals of A.S.Konev and L.B. Pokhvisnev, adopted at the Leninogorskaya obogatitel naya fabrika (Leninogorsk Beneficiation Works) (Ref 1 and 2) for the separation of collective lead-zinc concentrates. To extend the range of application of collective flotation the authors decided to study other possible methods. This has led them to laboratory-scale studies of the stability of the adsorbed layers of collector on particle surfaces in relation to different factors. For this the mineral suspension was treated for a given time with a collector and then subjected to flotation under normal conditions.

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Looking for New Methods of Separating Collective Flotation Concentrates

The product was exposed to the action of the factor being studied and again flotated; with complete destruction of the adsorbed layer hardly any flotation occurred. Abrasive factors were studied using quartz, which was mixed together with the mineral (galenite) in the flotation chamber (Fig 1 shows the flowsheet); the effectiveness depended on the origin of the mineral and the collector used. Quartz was found ineffective with a pyrite, a chalcopyrite and a sphalerite. Thermal disruption of the adsorbed layers was studied using hot water, steam or electric (induction or ordinary frequency) heating of the froth flotation product. Results for water at 100°C are shown as plots of mineral recovery in the second flotation against time of heating (Fig 2 and 3) for a galenite, sphalerite and pyrite with ethyl and amyl xanthates. The treatment was most effective with the galenite. Steam was less effective than hot water. Electric heating was effective for materials relatively insusceptible to hot water treatment; high-frequency heating heating in

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Looking for New Methods of Separating Collective Flotation Concentrates

experiments in which G.M.Dmitriyeva participated showed no advantages. To elucidate details of the adsorption layer disruption process special determinations were made of the rate and degrees of decomposition of xanthate solutions at elevated temperatures and also the quantity of xanthate leaving the mineral surface under the action of mechanical or thermal factors. Fig 5 shows plots of amount of undecomposed potassium ethyl xanthates against time for 30, 60, 80 and 100°C. Fig 6 shows plots of undecomposed ethyl, butyl and amyl xanthates after 30 minutes treatment against temperature. The authors conclude provisionally that with thermal decomposition of the adsorbed layer there is no appearance of free xanthate ions in the solutions; the stability of a freshly separated ion is considerably reduced. Since 1956, the authors have been working in collaboration with the laboratoriya ultrazvuka (Ultrasonics Laboratory) (head L.D.Rozenberg) of the Akusticheskiy institut (Acoustic Institute) of the AN SSSR (AS USSR). A magnetostruction vibrator (frequency

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Looking for New Methods of Separating Collective Flotation Concentrates

20 k Hertz, intensity 2 watt/cm^2), was used on froth products of galenite, pyrite, spalerite, chalcopyrite, scheelite, calcite, beryl zircon, ilmenite and some other minerals a chalcopyrite-galenite flotation product could be separated, the galenite being depressed. It is not clear in what form the xanthate is removed from the sulphide surface. It is doubtful if either the abrasive cavitation or temperature rises produced by the ultrasonic beam remove the xanthate. Adsorbed oleate layers on beryl and ilmenite were removed but in general such layers proved stable. Technical-economic calculations are said by the authors to be favourable to the use of ultrasonics. There are 6 figures, 1 table and 10 references, 8 of which are Soviet and 2 English.

SUBMITTED: January 29, 1959

Card 4/4

GLEMBOTSKIY, V.A., prof., doktor tekhn.nauk, otv.red.; MAKOVSKIY, G.M., red.izd-va; KOLOKOL'NIKOV, K.A., tekhn.red.

[Mineral dressing] Obogashchenie poleznykh iskopaemykh. Moskva, 1960. 180 p. (MIRA 13:6)

1. Akademiya nauk SSSR. Institut gornogo dela.
(Ore dressing)

GLEMBOTSKIY, V. . (Prof.)

"Physical Stability of Collector Adsorption Layers on Mineral Surfaces, and Methods for their Destruction."

report to be presented at the Intl. Mineral Process Inv Congress, London, England, [illegible] Apr [illegible]. Head of Laboratory of Flotation and Flotation Reagents, Institute of Mining, USSR Academy of Sciences.

POL'KIN, Stepan Ivanovich, prof., doktor tekhn.nauk; EYGELES, M.A., prof., doktor tekhn.nauk, retsenzent; TROITSKIY, A.V., inzh., retsenzent; AVSEYENOK, A.F., otv.red.; GLEMBOTSKIY, V.A., red.; YEZDOKOVA, M.L., red.izd-va; PROZOROVSKAYA, V.L., tekhn.red.; BERESLAVSKAYA, L.Sh., tekhn.red.

[Flotation of rare metal and tin ores] Flotatsiia rud redkikh metallov i olova. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960. 637 p. (MIRA 13:2)
(Flotation) (Nonferrous metals)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030005-8"

GLEMBOTSKIY, V.A. (Moskva); KOLCHEMANOVA, A.Ye. (Moskva)

Effect of heavy metal ions on the interaction of zinc blende and pyrite with xanthates in flotation. Izv. AN SSSR. Otd. tekh. nauk. Met.i topl. no.5:200-206 S-O '60. (MIRA 13:11)
(Flotation) (Sphalerite)

S/194/61/000/008/061/092
D201/D304

AUTHORS: Glembotskiy, V.A. and Kolchemanova, A.Ye.

TITLE: The possibility of using ultrasound for the disintegration of flotation layers of reagent-collectors at the surface of mineral particles

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 8, 1961, 12, abstract 8 E84 (Nauchn. soobshch. In-t gorn. dela AN SSSR, 1960, 6, 32-37)

TEXT: The method of ultrasonic disintegration was examined for the adsorption layers of collectors formed at the surface of sulphide and non-sulphide minerals. The experiments were carried out at a frequency of 20 kc/s and intensity ~ 2 W/cm^2. It was found that subjected for 60 sec. only, the galenite with grains 0.1-0.15 mm has its flotation capability substantially changed and after 3 minutes it loses it completely. The US has a good effect on pyrite and practically no effect on floated-off sphalerite and

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The possibility of using... S/194/61/000/008/061/092
D201/D304

chalco pyrite which makes it possible to apply ultrasound for separating complex concentrates. In order to examine the effect of ultrasound, the influence of temperature on adsorption layers was analyzed in the range which take place in ultrasonic irradiation (30-60°C). It is shown that the temperature has practically no effect. All the other conditions being the same, the ultrasound has more effect on coarse-grained materials. Experiments were carried out to determine the optimum quantity of the collector required for subsequent ultrasonic processing. 1 figure. 5 tables. 2 references. [Abstracter's note: Complete translation]

Card 2/2

GLEMBOTSKIY, V.A., doktor tekhn.nauk; SOROKIN, M.M., aspirant

Deactivation of sphalerite in an acid medium. Trudy Inst.gor.dela 6:77-84 '60. (MIRA 14:4)

(Sphalerite)

GLEMBOTSKIY, V.A.; SMIRNOVA, I.S.

Flotation methods of ore dressing are one hundred years old. TSvet. met 33 no. 12:11-14 D '60. (MIRA 13:12)
(Flotation)

SOLOZHENKIN, P.M.; GLEMBOTSKIY, V.A.; OGNEVA, L.I.; ZHITOMIRSKIY, A.N.

Complex utilization of waste at the Maikhura concentrating mill
Izv. Otd. geol.-khim. i tekh. nauk AN Tadzh.SSR 1:33-44 '60
(MIRA 15:1)

1. Institut khimii AN Tadzhikskoy SSR.
(Ore dressing) (Salvage (Waste, etc.))

GLEMBOTSKIY, V.A., doktor tekhn.nauk; SOROKIN, M.M., aspirant

Deactivation of sphalerite in an acid medium. Nauch.soob. Inst.gor.dela 6:77-84 '60. (MIRA 15:1)
(Sphalerite)

GLEMBOTSKIY, V.A.; SOROKIN, M.M.

New inhibitor for bornite and chalcosine in the selection of combined copper-zinc and copper-lead concentrates. Dokl. AN SSSR 134 no.5: 1146-1149 O '60. (MIRA 13:10)

1. Institut gornogo dela Akademii nauk SSSR. Predstavlono akademikom A.A.Skochinskim.
(Bornite) (Chalcocite)

GLEMBOTSKIY, Vladimir Aleksandrovich; prof. dokt.tekhn.nauk; KLASSEN, Villi Ivanovich, prof.dokt.tekhn.nauk; PLAKSIN, Igor' Nikolayevich,; POL'KIN, S.I., otv.red.; RYKOV, N.[illegible], red.izd-va; KACHALKINA, Z.I., red.izd-vo; SAL'TSOVSKIY, M.S., red.izd-va; PROZOROVSKAYA, V.L., tekhn.red. BOLDYREVA, Z.A., tekhn.red.

[Flotation] Flotatsiia. Pod obshchei red. I.N.Plaksina. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1961. 547 p. (MIRA 14:5)

1. Chlen-korrespondent AN SSSR (for Plaksin)
(Flotation)

GLEMBOTSKIY, V. A.

"The Flotation Characteristics of Quartz"

Report presented at the Colloquy on Preparation of Anorganic Non-Metallic minerals, Freiberg, GDR, 29-30 Aug 61

GLEMBOTSKIY, V.A.; UVAROV, V.S.; SOLOZHENKIN, P.M.

Some flotation data on celestine. Izv. Otd. geol.-khim. i tekh. nauk AN Tadzh. SSR No.1:51-56 '61. (MIRA 14:9)

1. Institut khimii AN Tadzhikskoy SSR.
(Celestite) (Flotation)

GLEMBOTSKIY, V.A.; UVAROV, V.S.; SOLOZHENKIN, P.M.

Studying the effect of some electrolytes on the flotation of celestine by means of various collectors. Izv. Otd. geol.-khim. i tekh. nauk AN Tadzh. SSR No.1:57-62 '61. (MIRA 14:9)

1. Institut khimii AN Tadzhikskoy SSR.
(Celestite) (Flotation)

GLEMBOTSKIY, V.A.; SHUKHARDIN, S.V.

"Expansion of mining engineering in Russia" by E. M. Faerman. Reviewed by V. A. Glembotskii, S. V. Shukhardin. Izv. AN SSSR. Otd. tekh. nauk. Met. i topl. no.2:190-191 Mr-Ap '61. (MI A 14:4)

(Mining engineering) (Faerman, E. M.)

GLEMBOTSKIY, V.A., doktor tekhn.nauk; DMITRIYEVA, G.M., kand.tekhn.nauk

Study of the dependence of the flotation properties of a mineral on the conditions of its genesis and its geochemical features. Nauch. soob. IGD 16:14-18 '62. (MIRA 16:8)
(Minerals--Analysis) (Flotation)

GLEMBOTSKIY, V.A.; KULIKOV, I.M.

Effect of calcium and magnesium ions on cerussite sulfidizing and flotation processes. Izv. vys. ucheb. zav.; tsvet. met. 5 no.2:38-44 '62. (MIRA 15:3)

1. Irkutskiy politekhnicheskiy institut, kafedra obogashcheniya poleznykh iskopayemykh.
(Cerussite) (Ore dressing) (Ion exchange)

GLEMBOTSKIY, V.A.; KULIKOV, I.M.

Positive effect of ammonium sulfate on processes of sulfidizing and flotation of cerussite in presence of calcium and magnesium ions. Izv.vys.ucheb.zav.; tsvet.met. 5 no.3:32-41 '62. (MIRA 15:11)

1. Irkutskiy politekhnicheskiy institut, kafedra obogashcheniya poleznykh iskopayemykh.
(Cerussite) (Flotation)

PLAKSIN, I.N., otv. red.; GLEMBOTSKIY, V.A., doktor tekhn. nauk, zam. otv. red.; KLASSEN, V.I., doktor tekhn. nauk, red.; OKOLOVICH, A.M., kand. tekhn.nauk, red.; TRET'YEKOV, O.V., red.; BANSKIY, L.A., kand. tekhn. nauk, red.; MAKOVSKIY, G.N., red. izd-va; GOLUB', S.P., tekhn. red.

[Ore dressing and coal preparation in the Kazakh S.S.R.; transactions of the out-of-town session in Balkhash and Karaganda, of the Section on Mineral Dressing of the Learned Council of the A.A.Skochinskii Mining Institute (November-December 1960)]Zadachi obogashcheniia rud i uglei Kazakhskoi SSR; trudy vyezdnoi sessii sektsii obogashcheniia poleznykh iskopaemykh Uchenogo soveta Instituta i gornogo dela im. A.A.Skochinskogo v gorodakh Balkhashe i Karaganda, noiabr'-dekabr' 1960 g. Moskva, Izd-vo Akad. nauk SSSR, 1962. 173 p. (MIRA 15:10)

1. Chlen-korrespondent Akademii nauk SSSR (for Plaksin).
2. Institut gornogo dela im. A.A.Skochinskogo (for Plaksin, Glembotskiy, Okolovich, Klassen).

(Ore dressing) (Coal preparation)

BAYSHULAKOV, A.A.; GLEMBOTSKIY, V.A.; SOKOLOV, M.A.

Emulsification of reagents in the presence of stabilizers.
Vest.AN Kazakh.SSR 18 no.11:47-54 N '62. (MIRA 15:12)
(Surface-active agents) (Ore-dressing)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030005-8"

SOLOZHENKIN, P.M.; GLEMBOTSKIY, V.A., KOTOV, V.A.

Statistical method for determining the optimum conditions of mineral dressing. Dokl. AN Tadzh. SSR 6 no.2:21-25 '63. (MIRA 17:4)

1. Institut khimii AN Tadzhikskoy SSR. Predstavlano akademikom AN Tadzhikskoy SSR K.T.Poroshinym.

GLEMBOTSKIY, V.A., doktor tekhn.nauk; KOSHKUBAYEV, K.T.

Rate of formation of an absorption layer of flotation agents on mineral particles. Vest. AN Kazakh.SSR 19.no.2:14-20 F '63. (MIRA 16:5)

(Adsorption) (Flotation)

GLEMBOTSKIY, V.A.; KULIKOV, I.M.

Sulfidization of cerussite by means of various [illegible] thiolsorn and their combinations in the flotation process. Trudy IMet no.20: 27-35 '63. (MIRA 18:2)

GLEMBOTSKIY, V. A. (Dr. Ing.)

"Iron ore flotation reagents."

report submitted for 6th Intl Mineral Processing Cong, Cannes, 26 May-2 Jun 63.

Chief, Lab of Flotation and Flotation Reagents, A. A. Skochinskiy Mining Inst, Moscow.

SOROKIN, M.M., kand.tekhn.nauk, prof ; GLEMBOTSKIY, V.A., doktor tekhn.nauk; RAUKHVARGER, Ye.L., kand.tekhn.nauk

Flotation properties of some compounds of the aromatic series. Nauch. soob. IGD 19:12-23 '63. (MIRA 17:2)

GLEMBOTSKIY, V.A.; UVAROV, V.S.

Mechanism underlying the activating effect of some water-soluble compounds on the flotation of celestine and anhydrite. Dokl. AN Tadzh. SSR 6 no.3:26-29 '63. (MIRA 17:4)

1. Institut khimii AN Tadzhikskoy SSR. Predstavleno chlenom-korrespondentom AN Tadzhikskoy SSR V.I.Nikitinym.

GLEMBOTSKIY, V.A.; UVAROV, V.S.

Effect of sodium sulfide on the flotation of celestine and anhydrite. Dokl. AN Tadzh. SSR 6 no.5:24-27 '63. (MIRA 17:4)

1. Institut khimii AN Tadzhikskoy SSR. Predstavlano chlenom-korrespondentom AN Tadzhikskoy SSR V.I.Nikitinym.

GLEMBOTSKIY, V. A.; ANFIMOVA, Ye. A.

"Specific crystallochemical and structural features of oxidized minerals of lead and influence on the choice of reagents for the flotation of these minerals."

report submitted for 7th Intl Mineral Processing Cong, New York, 20-25 Sep 64.

GLEMBOTSKIY, V.A., prof. doktor tekhn. nauk, otv. red.; VASIL'YEV, B.K., red.

[Intensification of the flotation process] Intensifikatsiia flotatsionnogo protsessa. Moskva, Nauka, 1964. 46 p. (MIRA 17:12)

1. Moscow. Institut gornogo dela im. A.A.Skochinskogo.

GLEMBOTSKIY, Vladimir Aleksandrovich; DMITRIYEVA, Gali Mikhaylovna

[Effect of the origin of minerals on their flotation characteristics] Vliianie genezisa mineralov na ikh flotatsionnye svoistva. Moskva, Izd-vo "Nauka," 1965. 110 p. (MIRA 18:3)

[illegible], Vladimir Alekseyevich, prof., [illegible]
[illegible], [illegible]

[Flotation of iron ores] Flotatsiia zhelezn[illegible] rud. [illegible]
Sverd., Metgiz, 1947. 222 p. [illegible]

ARASHKEVICH, Vsevolod Markovich; BONDAR', N.Z., retsenzent;
GLEMBOTSKIY, V.A., prof., doktor tekhn. nauk, retsenzent;
KUNIK, V.F., red. izd-va; BOLDYREVA, Z.A., tekhn. red.

[Dressing of nonferrous metal ores] Obogashchenie rud tsvetnykh metallov. Moskva, Izd-vo "Nedra," 1964. 492 p. (MIRA 17:2)

GLEMBOTSKIY, V.A., prof.; KOSHERBAYEV, K.T., inzh.

Increasing the effectiveness of the flotation of sulfide ores using the method of separate processing of various fractions of a polydispersed pulp. Izv. vys. ucheb. zav.; gor. zhur. 7 no.5:149-155 '64. (MIRA 17:12)

1. Institut gornogo dela imeni A.A. Skochinskogo.

GLEMBOTSKII, Ya. L.

"Comparative rate of direct and reverse mutations in the loci of Yellow, Achaete-Scute, White and Forked N Drosophila Melanogaster." Chair of Genetics (Prof. N. P. Dubinin) All-Union Zootechnical Institute of Fur-Bearing Annuals at Balashikha near Moscow. (p. 813) by Glembotskii, Ya. L.

SO: Biological Journal (Biologicheskii Zhurnal) Vol. V, 1936, No. 5

GLEMBOTSKIY, Ya. L.

6827. Kalinin, A. D. i Glembotskiy, Ya. L.
3500 kilogrammov moloka ot kazhdoy korovy. (Opyt raboty markhin. Podsobnogo khozyaystva Torgovmorputi). Yakutsk, Yakutknigoizdat, 1954. 28 s. 20 sm. (M-vo sel'skogo khozyaystva yakut. ASSR. Uchastniki Vskhv) 3,000 ekz. 30 k. - (55-28,1) P 636.[illegible].083 st (57.31)

SO: Knizhnaya Letopis' No. 6, 1955

GLEMBOTSKIY, Ya.L.; POPOV, S.N.

"Present state and prospective development of animal husbandry in Lena and Olekminsk Districts of the Yakut A.S.S.R."

p. 176 Trudy Akad. Nauk SSSR, Yakutsk Filial, No. 1, 1956.

GLEMBOTSKIY, Ya.L.

Inbreeding practiced in breeding fine-wool sheep [with summary in English]. Viul.MOIP. Otd.biol. 61 no.4:23-36 Jl-Ag '56. (MLRA 10:8)
(INBREEDING) (SHEEP BREEDING)

GLEMBOTSKIY, Ya.L., kand.sel'skokhoz.nauk, otv.red.; KUSTUROV, D.V., red.izd-va; PARNIKOV, Ye.S., tekhn.red.

[Reports at the Eighth Scientific Session; botany, soil science, zoology, animal science] Doklady na Vos'moi nauchnoi sessii; botanika, pochvovedenie, zoologiia, zootekhniia. IAkutsk, IAkutskoe knizhnoe izd-vo, 1957. 310 p. (MIRA 12:10)

1. Akademiya nauk SSSR. Yakutskiy filial, Yakutsk.
(Yakutia--Natural resources) (Yakutia--Agriculture)

Glembotskiy, Ya.L.

GLEMBOTSKIY, Ya.L.; DADYKIN, V.P.

Work at the Institute of Biology of the Yakut Branch. Izv. AN SSSR. Ser.biol. no.6:756-762 N-D '57. (MIRA 10:12)

1. Institut biologii Yakutskogo filiala AN SSSR.
(YAKUTIA--BIOLOGICAL RESEARCH)

GLEMBOTSKIY, Ya.L.

Some characteristics of variability and inheritance of the fleece in sheep and goats. Report No.1: Relation between the variation in the amount of clipped wool and the variability of characters influencing it. Biul. MOIP. Otd. biol. 64 no.3:117-133 My-Je '59.
(MIRA 13:3)

(Wool)

GLEMBOTSKIY, Ya.L.

Some characteristics of the variability and inheritance of fleece in sheep and goats. Report No. 2: Inheritance of the wool clip in crosses between Angora goats and coarse-wool goats. Biul. MOIP. Otd. biol. 65 no. 4:89-101 Jl-Ag '60. (MIRA 13:10)

(GOAT BREEDING) (WOOL)

GLEMBOTSKIY, Ya.L.; ABELEVA, E.A.; LAPKIN, Yu.A.

Effect of fractionation of the gamma-ray dose on mutation frequency in spermatids of Drosophila melanogaster. Radiobiologiia 1 no.1: 119-122 '61. (MIRA 14:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(GAMMA RAYS—PHYSIOLOGICAL EFFECT)
(ZOOLOGY—VARIATION)

27 120

S/560/61/000/010/009/016
D298/D302

AUTHORS: Glembotskiy, Ya. L., Abelyeva, E. A., Lapkin, Yu. A., and Partenov, G. I.

TITLE: The effect of cosmic flight factors on the occurrence frequency in Drosophila Melanogaster of recessive lethal mutations in the X-chromosome

SOURCE: Akademiya nauk SSSR. Iskusstvennyye sputniki Zemli. no. 10. Moscow, 1961. 61-68

TEXT: Reference is made to early studies of mutagenic changes under the effects of ionizing radiation. Experiments on yeast and drosophila pointed out the minimal effect of cosmic radiation on the natural mutation process. Further studies on drosophila confirmed the insignificance of cosmic radiation in spontaneous mutation. More recent studies have been undertaken by the authors on two strains of Drosophila Melanogaster--the

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S/560/61/000/010/009/016
D298/D302

The effect of cosmic

(D-32) and [illegible] (D-18) - to determine the mutagenic effect after a cosmic flight on the organism. The flight of the 2nd Sputnik lasting about 24 hr. and conducted at a height of 300 km, was used to study the effects of cosmic radiation on the heredity of the drosophila. Two types of tests were carried out: (1) to determine the occurrence frequency of recessive lethal mutations in the X-chromosome (sex-linked), and (2) to determine the occurrence frequency of dominant lethal mutations causing death in the early developmental stage of heterozygous organisms in these mutations. The mutability of the two spermatogenic stages was compared - that of the spermatid and that of the mature sperms. The frequency of induced mutations was studied, depending on the frequency of spontaneous mutations. Cross-breeding of the flies which underwent cosmic flight was performed in August 1961 to determine the sex-linked recessive lethals. The Muller-5 method was used for this purpose. The F_2 (second generation) culture percentage with no grey-red-eyed females was taken

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S/560/61/000/010/009/016
D298/D302

The effect of cosmic...

as index of the occurrence frequency of recessive lethal mutations in the X-chromosomes of the females which had been in cosmic flight. In both strains (D-32 and D-18), it was found that the mutagenic effect is characterized by a statistically valid increased frequency of sex-linked recessive lethal mutations, whereby the D-18 strain (with a higher spontaneous mutability) appeared to be the more sensitive to mutagenic effect. The dotted nature of the induced mutations (20 tested cytologically) and the elevated frequency of mutation of the spermatid, as compared to the sperms, indicates their possible stipulation by cosmic radiation. It is emphasized that an accurate determination cannot be made of the role played by cosmic radiation in the mutagenic effect noted during relatively short cosmic flights. Further experiments to clarify the mutagenic effect of vibrations, acceleration, and weightlessness should be carried out. There are 1 figure, 1 table and 11 references: 2 Soviet-bloc and 9 non-Soviet-bloc. The references to the English-language publications read as follows: O. G. Fahmy.

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33121
D/560/61/000/010/009/016
D298/D302

The effect of cosmic...

M. I. Fahmy, Genet. Res., 1, 173, 1960; P. T. Ives, Proc. Nat. Acad. Sci. USA, 45, N 2, 1959

SUBMITTED: May 3, 1961

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33313
S/560/61/000/010/017/016
D298/D302

27.12.20

AUTHORS: Glembotskiy, Ya. L., Prokof'eva-Bel'govskaya, A. A., Shamina, Z. B., Gol'dat, S. Yu., Khvostova, V. V., Valeva, S. A., Eyges, N. S., and Nevzgodina, L. V.

TITLE: Effect of cosmic flight factors on the heredity and development of actinomycetes and higher plants

SOURCE: Akademiya nauk SSSR. Iskusstvennyye sputniki Zemli. no. 10. Moscow, 1961, 72-81

TEXT: The second cosmic space-ship was utilized to study the combined genetic effect of cosmic flight on organisms. This article deals with the study of the following cultures: actinomyces erythreus, stems 2577 and 8594, and actinomyces streptomycini Kras., stem ЛС-3 (LS-3). After the cosmic flight, the

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standards and experimental cultures were investigated according to: (1) vitality and (2) a microscopic characteristic of growth and development. The 2577 and 8594 stems differ by the sizes of their nuclear element in the spore and by their sensitivity to ultra violet rays (UV). It is also assumed that they differ in their reaction to ionizing radiation. All the 4 tested stems were found to be sensitive to conditions of cosmic flight. The vitality (i.e., the number of spores which survived and developed colonies) of the radio-resistant act. erythreus 2577, as compared to the standards, increased 6 times; the no. 8594 decreased 12 times; the act. aureofaciens [illegible]-229 (LSB-220[illegible]) dropped in vitality by about 75% on the average. In the roots of all 5 types of experimental seeds, the percentage of chromosome changes was somewhat increased. However, only in the case of 2 types was this increase statistically valid. In 3 types of plants, in increase of mitosis was noted. In the case where the percentage of anaphases with chromosome changes was found

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to be high (about 5%), the tempo of mitosis fell. The conditions of cosmic flight stimulated the growth intensity compared to the standards. The following microscopic morphology features of the experimental cultures confirm this fact: (a) development of a more basiphyllic and powerful gif, (b) growth of a thicker intertwining of mycelia, (c) lengthy growth of well-developed gifs. Data on the survival of the 8594 and 2577 stems are not completely valid since the concentrations of the spore suspensions of the control and experimental cultures were determined visually from the suspension turbidity. The morphology changes in the colonies were investigated on the act. erythreus 8594 and act. aureofaciens LSB-2201. Obtained data show that the morphology changes in the actinomyces, both in the experiment (cosmic flight) and control, lie within the same limits. The cytology analysis of agricultural plant seeds affected by cosmic flight was conducted by studying the chromosome impairment in the ana- and telophases of the first mitosis. Obtained results

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showed that in all the investigated plants there is a certain increase of cells with chromosome changes and in only 2 - winter wheat and Spartanet's peas--is this increase statistically valid. There are 4 figures, 2 tables and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: S. B. Pipkin, W. N. Sullivan, Aerospace Med., 30, 585, 1959.

SUBMITTED: May 3, 1961

L2696

S/747/62/000/000/020/025
D243/D307

AUTHORS: Glembotskiy, Ya. L., Abeleva, E. A. and Lapkin, Yu. A.

TITLE: The effect of small doses of ionizing radiation on the frequency of occurrence of sex-linked, recessive, lethal mutations in Drosophila

SOURCE: Radiatsionnaya genetika; sbornik rabot. Otd. biol. nauk AN SSSR. Moscow, Izd-vo AN SSSR, 1962, 300-311

TEXT: The preliminary results are given of experiments carried out from 1959 to March 1961, to study the effect of 20 r doses of radiation on the frequency of sex-linked, recessive lethals, in relation to a) type of radiation- γ rays or high speed neutrons; b) radiation intensity - single or repeated doses; c) gamete development - mature sperm or spermatids; d) interstrain differences in spontaneous mutation rate. It is stated that little work has been done on the effects of sub-25 r doses, especially as regards the existence of a threshold and accumulative effects. The experiments were carried out on Д-18 and Д-32 (D-18 and D-32) Drosophila lines, dif-

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fering considerably in the spontaneous rate of mutation. Spontaneous and induced lethals were detected by the Muller-5 method. Co^{60} γ rays were delivered at 0.93 r/min. Experiments with high-speed neutrons began in May 1950, using a 1000 kv reactor, the dose intensity being 115 r/hr. The results refer only to experiments with D-32 line. The authors found that 5-r doses of γ radiation increased the frequency of recessive lethals in sperm and spermatids and repeated radiation produced a cumulative, mutagenic effect. The relative frequency of recessive lethals per radiation induced by repeated 5 r γ radiation agrees with the data of other authors using higher single doses. The mutagenic effect of high-speed neutrons is 1 1/2 - 2 times greater than that of γ rays. Spermatids had a higher mutation rate than sperm, with both types of radiation. No threshold effect was demonstrated and it is suggested that, should a threshold be detected, it will be specific to the type of radiation, type of mutation, stage of gametogenesis, and the organism. The danger to human germinal cells of low doses of γ rays, and especially, high-speed neutrons is stressed. There are 5 tables.

ASSOCIATION: Institut biologicheskoy fiziki AN SSSR, Moskva (Institute of Biological Physics, AS USSR, Moscow)

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GLEMBOTSKIY, Ya.L.; ABELEVA, E.A.; LAPKIN, Yu.A.; PARFENOV, G.P.

Effect of space flight factors on the frequency of the appearance of recessive lethal mutations in the x-chromosome of Drosophila melanogaster. Probl.kosm.biol. 1:219-231 '62. (MIRA 15:12)
(SPACE FLIGHT—PHYSIOLOGICAL EFFECT)
(VARIATION (BIOLOGY))

GLEMBOTSKIY, Ya.L.; PROKOF'YEVA-BEL'GOVSKAYA, A.A.; SHAMINA, Z.B.; KHVOSTOVA, V.V.; VALEVA, S.A.; EYGES, N.S.; NEVZDOGINA, L.V.

Effect of space flight factors on the heredity and development in actinomycetes and higher plants. Probl.kosm.biol. 1:236-247 '62. (MIRA 15:12)

(SPACE FLIGHT—PHYSIOLOGICAL EFFECT)

GLEMBOTSKIY, Ya.L.; PARFENOV, G.P.

Effect of space flight factors on some biological indices in insects. Probl.kosm.biol. 2:98-115 '62. (MIRA 16:4)
(SPACE FLIGHT--PHYSIOLOGICAL EFFECT)
(DROSOPHILA) (GENETICS)

GLEMBOTSKIY, Ya.L.; PARFENOV, G.P.; LAPKIN, Yu.A.

Influence of space flight factors on the frequency of occurence of sexlinked recessive lethal mutations in Drosophila melanogaster. Isk.sput.Zem. no.15:113-119 '63. (MIRA 16:4)
(Space biology)

GLEMBOTSKIY, Ya.L.; LAPKIN, Yu.A.; PARFENOV, G.P.; KAMSHILOVA, Ye.M.

Effect of cosmic flight factors on the frequency of occurrence of sex-interlinked recessive lethal mutations in Drosophila melanogaster. Kosm. issl. 1 no.2:327-334 S-O '63.
(MIRA 17:4)

DUBININ, N. P.; ARSENYEVA, M. A.; GLEMBOTSKIY, Ya. L.

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report submitted for 3rd Intl Conf, Peaceful Uses of Atomic Energy, Geneva, 31 Aug - 9 Sep 64.

KUZIN, A.M.; GLEMBOTSKIY, Ya.L.; LAPKIN, Yu.A.; KALENDO, G.S.; BREGADZE, Yu.I.; MAMUL', Ya.V. [deceased]; MYASNYANKINA, Ye.N.

Mutagenic effectiveness of incorporated C^{14}. Radiobiologiia 4 no.6: 804-809 '64. (MIRA 18:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

GLEMBOTSKIY, Ya.L., kand. sel'skoz. nauk, otv. red.; KIZATNIK, A.T., red.

[Judging and selecting herd rams of the Altai fine-wool breed] Otsenka i otbor proizvoditelei Altaiskoi tonkorunnoi porody. Novosibirsk, Nauka, 1965. 158 p. (MIRA 19:1)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye.

SUSHCHINSKIY, M.M., doktor fiz.-matem.nauk; OBUKHOV, A.M.; GILYAROV, M.S., doktor biolog.nauk; TAFT, V.A., doktor tekhn.nauk; GLEMBOTSKIY, V.G., doktor tekhn.nauk; OLOFINSKIY, N.F., kand. tekhn.nauk

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1. Chlen-korrespondent AN SSSR (for Obukhov).
(Science--Congresses)

GLEMBOTSKIY, Ye.A.

Work practices of the veterinarians of Kotovsk District, Odessa Province. Veterinariia 39 no.10:18-21 O '62. (MIRA 16:6)

1. Glavnyy veterinarnyy vrach Kotovskogo rayona, Odesskoy oblasti.

(Kotovsk District--Veterinary medicine)

SEVERIN, S.Ye.; GLEMZHA, A.A.

Effect of imidazole derivatives on pyruvic dehydrase in the muscle tissue. Biokhimiia 29 no.6:1170-1176 N-D '64. (MIRA 18:12)

1. Kafedra biokhimii zhivotnykh biologo-pochvennogo fakul'teta Gosudarstvennogo universiteta imeni M.V.Lomonosova, Moskva. Submitted June 24, 1964.

CEKANSKI, Adam; GLENC, Franciszek

Colposcopic examinations of erosions of the vaginal part; material of II Obstetric and Women's Diseases Clinic of the Medical Academy in Bytom. Gin. polska 28 no.1:23-31 Jan-Feb 57.

1. Kierownik: prof. dr. B. Stepowski. Bytom, Klinika Poloznicza i Chorob Kobiecych, Al. Batorego 15.
(CERVIX, UTERINE, dis.
erosion of portio vaginalis, colposcopic exam., statist. (Pol))

GLENC, Franciszek

Treatment of erosion & rupture of the portio of the uterus with electrocoagulation. Gin. polska 29 no.5:493-498 Sept-Oct 58.

1. Z II Kliniki Poloznictwa i Chorob Kobiecych A. M. w Bytomiu Kierownik: prof. dr. med. B. Steopwski Raciborz--ul. Wojska Polskiego 2.

(CERVIX, UTERINE, dis.
erosion & rupt., ther., electrocoagulation (Pol))
(ELECTROCOAGULATION, in various dis.
cervical erosion & rupt. (Pol))

KLIMCZYK, Zdzislaw; GLEHC, Franciszek

Depression of lactation by synthofolin. Gin.polska 30 no.5: 559-562 S-O '59.

1. Z II Kliniki Poloznictwa i Chorob Kobiecych Sl. A.M. w Bytomiu Kierownik: prof. dr B. Stepowski.
(DIETHYLSTILBESTROL pharmacol)
(LACTATION pharmacol)

CEKANSKI, Adam; GLENC, Franciszek; JONEK, Jan

Observations on nuclear chromatins in parents of infants with developmental defects. Ginek. pol. 33 no.5:581-584 '62.

1. Z II Kliniki Poloznictwa i Chorob Kobiecych Slaskiej AM w Bytomiu. Kierownik: prof. dr med. B. Stopowski.
(ABNORMALITIES) (SEX CHROMATIN)

JONEK, Jan; GLENC, Franciszek

Behavior of alkaline and acid phosphatases and of ATPase in the uterine mucosa of menopausal women. Endokr. pol. 14 no.1: 85-99 '63.

1. II Klinika Polozniczo-Ginekologiczna Sl. AM w Zabrzu-Rokitnicy Kierownik: prof. dr Br. Stepowski.
(MENOPAUSE) (MUCOUS MEMBRANE)
(ALKALINE PHOSPHATASE) (HISTOCHEMISTRY)
(ACID PHOSPHATASE) (ADENOSINE TRIPHOSPHATASE)
(UTERUS) (FALLOPIAN TUBES)

JONEK, Jan; ZENNEGG, Marian; GLEMC, Franciszek

Morphological structure of early human embryos. Ginek. Pol. 35 no.3:497-503 My-Je '64

1. Z II Klinik Położnictwa i Chorób Kobiecych Śląskiej Akademii Medycznej w Zabrzu (Kierownik: prof. dr. med. S.Stępowski [deceased]).

GLENCIU, L.

The conquerors of the stratosphere! ARIPILE PATRIEI. (Asociatia Voluntara pentru Sprijinirea Apararii Patriei) Bucuresti. p. 16.
Vol. 2, no. 8, Aug. 1956.

SOURCE: East European Acessions List, (EEAL), Library of Congress, Vol. 5, No. 11, November, 1956.

HUNGARY/Soil Science - Mineral Fertilizers. J

Abs Jour : Ref Zhur Biol., No 22, 1958, 100064

Author : Gleria, J.
Inst : [illegible]
Title : Application of Isotopes and Investigation of Fertilizers

Orig Pub : Agrokem. es. talaJ., 1957, 6, No 3, 237-244

Abstract : No abstract.

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GLERIA, Janos, di.

The tenth anniversary of the existence of the Hungarian Society for Agricultural Sciences. Agrokem talajtan 2 no.1:137-138 Mr '62.

1. "Agrokemia es Talajtan" szerkesztto bizottsagi tagja.

GLERYCH, A.

Slide for projecting the transportation of soil on 600-mm working tracts. (Conclusion) p. 263. Vol. 10, no. 11, Nov. 1955; Drevownictwo.

SOURCE: East European Accessions (EEAI), LC, Vol. 5, no. 3, March 1956.

USSR/Human and Animal Physiology (Normal and Pathological). T
Nervous System. Higher Nervous Activity.
Behavior.

Abs Jour: Ref Zhur-Biol., No 17, 1958, 80047.

Author : Glosalyan, L.S.
Inst : ----------
Title : On the So-Called Active Movements of a Dog's Paw.

Orig Pub: Izv. AN ArmSSR. Biol. i s.-kh. n., 1957, 10, No 8, 59-63.

Abstract: Conditioned food reflexes of a passive idea of the posterior right paw were formed in dogs. The active movement of this paw, observed between application of stimulators, did not depend on the degree of satiation of the dog. Before the application in the stereotype of a negative conditioned stimulator, and following

Card : 1/2

GLESG, A.

Manufacture of stained asbestos cement roofing. p. 238.

STAVBA. (Poverenictvo stavebnictva) Bratislava, Czechoslovakia. Vol. 6, no. 8, Aug. 1959.

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GLESINGER, L.

200th anniversary of percussion. Liječn. vjesn. 83 no.2:172-175 '61.

(PERCUSSION hist)

GLESINGER, Lavoslav
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The podagra and lithiasis in the old Ragusa. Lijec. vjes. 76 no. 3-4:142-152 Mar-Apr 54.

1. Iz zavoda za povijest medicine Medicinskog fakulteta u Zagrebu.
(GOUT, epidemiol.
Yugosl., hist.)
(KIDNEYS, calculi
epidemiol. in Yugosl., hist.)

GLESINGER, Lavoslav, Dr.

Andrija Dudic on Vesalius' death. Lijec. vjes. 78 no.11-12: 555-562 Nov-Dec 56.

1. Iz Zavoda za povijest medicine Medicinskog fakulteta Sveucilista u Zagrebu.
(FAMOUS PEOPLE
Vesalius, Andreas, his travel to Jerusalem & death (Ser))

YUGOSLAVIA

Dr Lavoslav GLESINGER, Institute for the History of Natural, Medical and Mathematical Sciences of the Yugoslav academy of Arts and Sciences (Institut za povijest prirodnih, matematickih i medicinskih nauka JAZU [Jugoslavenska Akademija Znanosti i Umjetnosti], Zagreb

"Anton Mihelic (1748-1818) and His Contribution to Neurophysiology."

Zagreb, Lijecnicki Vjesnik, Vol 85, No 3, 1963; pp 307-315.

Abstract [English summary modified]: Review of the work of this Slovenian physician and teacher classmate (in Vienna) of Prochazka, who taught physiology pathology and materia medica in Prague, was later dean of medical school there, wrote 8 medical books in which he gave the "coup de grace" to old theories of nerve transmission through hollow nerves or by mechanical vibration or oscillation. Sixty-two historical references.

1/1

GLET, Oldrich, inz. CSc.

Characteristics of the physicohydrologic properties of Czechoslovak soils. Rost vyroba 10 no. 5/6:600-609 My-Je '64.

1. Central Research Institute of Plant Production, Prague - Ruzyne.

GIET, Oldrich, inz. CSc.

Moisture of chernozems on deep Pleistocene deposits.
Vodohosp cas 12 no. 1:16-33 '64.

1. Central Research Institute of Plant Production, Section of Soil Research, Prague - Ruzyne.

BEREZHNOY, A.I.; BRODSKIY, Yu.A.; [illegible], Z.I.; VERNEEG, K.L.; GALDINA, N.M.; GLETMAN, L.A.; GINZBURG, L.B.; GUTOF, V.G.; GUREVICH, L.R.; DAUVAL'TER, A.N.; YEGOROVA, L.S.; KOTLYAR, A.Ye.; KUZYAK, V.A.; MAKAROV, A.V.; POLIYAK, V.V.; POPOVA, E.M.; PUYANISHNIKOV, V.I.; SELTZERLE, E.S.; SIL'VESTROVICH, S.I., kand. tekhn. nauk, dots.; SOLOMIN, [illegible]; [illegible], B.S.; TYKACHINSKIY, I.D.; CHIGAYEVA, V.F.; SHLAIN, I.[illegible]; EL'KIND, G.A.[deceased]; KITAYGORODSKIY, I.I., zasl. deyatel' nauki i tekhniki RSFSR, doktor tekhn. nauk, prof., red.; GOLOVOVA, N.A., red.izd-va; KONAKOVSKAYA, L.A., tekhn. red.

[Handbook on glass manufacture] Spravochnik po proizvodstvu stekla. [By] A.I.Berezhnoi i dr. Pod red. I.I.Kitaigorodskogo i S.I.Sil'vestrovicha. Moskva, Gosstroiizdat. Vol.2. 1963. 515 p. (MIRA 16:12)

(Glass manufacture)

NOVAK, Zd.; GLETT, J.

Ozonization of drinking water in Czechoslovakia. Vodni hosp 14 no.4:152 '64.

USSR/Physical Chemistry - Molecule. Chemical Bond B-4

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 3513

Author : Glevashev, G. Ya.
Inst : Kazan' University
Title : Dependence of the Configuration of the Resonance Absorption Curve on the Temperature.

Orig Pub : Uch. zap. Kazanskogo un-ta, 1956, 116, No 1, 121-126

Abstract : For the system of spins of a crystal of suppressed orbital magnetism, there have been calculated the moments of resonance curve of absorption of zero (μ_0), first ($\overline{\Delta \nu_1}$), second ($\overline{\Delta \nu_2}$), fourth ($\overline{\Delta \nu_4}$) orders, taking into account the temperature dependence. Energy of the system of spins consists of energy in the external field H_0 and energy of dipole and exchange interaction H_1. In the calculations, it was considered that $H_0 \gg H_1$ and $g\beta H \ll kT$ (H - external field). Moments of the curve were calculated in relation to Larmor frequency.

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USSR/Physical Chemistry - Molecule. Chemical Bond B-4

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 3513

since their exchange energies differ in sign, temperature variation of width of line must differ: in ferromagnetics the width decreases with drop in temperature, while in antiferromagnetics it increases. This is confirmed by experiments (Bloembergen N., Phys. Rev., 1950, 78, 572; Okamura T. et al., Phys. Rev., 1951, 82, 285). In the approximation at which calculations were made (up to 1/kT), the moments $\Delta\nu$, $\Delta\nu_2$ do not depend on H; however the moment of first order is proportional to H: $\Delta\nu_1 = -(\lambda\gamma\beta H/3kT)\sum_{ik} B_{ik}$ (B_{ik} -- coefficient of dipole interaction). The absorption curve is asymmetrical in relation to its center; asymmetry of the curve increases on increase of the field and on decrease of the temperature.

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MIKHAYLOVA, Ninel' Petrovna; GLEVASSKAYA, Alla Mikhaylovna; KRUTIKHOVSKAYA, Z.A., kand. geol.-miner. nauk, otv. red.; SERDYUK, O.P., red.

[Magnetozation of the basic and ultrabasic rocks of the Ukrainian shield and its use in geology] Namagnichennost' osnovnykh i ul'traosnovnykh porod Ukrainskogo shchita i ee ispol'zovanie v geologii. Kiev, Naukova dumka, 1965. 148 p. (MIRA 18:8)

MIKHAYLOVA, N.P. [Mykhailova, N.P.]; GLEVAS'KA, A.M. [Hlevas'ka, A.M.]

Plenum of the Commission on a Constant Field and Paleomagnetism. Dop. AN URSR no.2:279-280 '64. (MIRA 17:6)

MIKHAYLOVA, N.P.; GIRYASHKAYA, A.M. [Hiryashka, A.M.]

Use of the magnetothermal method in determining ore inclusions in pyroxenes. Dop. AN URSR no.5:506-509 '64.

(MIRA 17:5)

1. Institut geofiziki AN UkrSSR.

VITKAUSKAS, J., red.; ZVIRBNAS, A., red.; SERKSNYS, J., red.; ADOMAVICIUS, B., red.; BARANAUSKAS, L., red.; [illegible], V., red.; GLEVAVICIENE, S., red.

[Problems of the mechanization of agricultural production]
Zemes ūkio gamybos mechanizavimo klausimai. Vilnius, Leidykla "Mintis," 1964. 118 p. [In Lithuanian] (MIRA 18:2)

1. Lietuvos zemės ūkio mechanizacijos [illegible] Lietuvos nokslinis tyrimo institutas.